

**ABSTRACT OF THE DISCLOSURE**

A method and apparatus for inducing heat within a workpiece. A flexible fluid-cooled induction heating cable is used to produce a magnetic field to induce electric current in a workpiece. The induction heating cable has separate fluid and electrical connectors to separately couple cooling fluid and electric current to and from the induction heating cable. An induction heating system having a fluid cooling unit, a power source, and a flexible fluid-cooled induction heating cable having separate fluid and electrical connectors. An extension cable may be used to enable the flexible fluid-cooled induction heating cable to be used at a greater distance from the power source and the fluid cooling unit. An insulation blanket adapted for use with a specific size workpiece may be used with the flexible fluid-cooled induction heating cable.